

REMARKS

Claims 1-126, 132-137 and 141-146 are pending in this application. Because claims 1-126, 132-137 and 141-146 are in condition for allowance at least for the reasons discussed below, it is respectfully submitted that the entire application is in condition for allowance.

The Office Action continues to reject claims 1-126, 134-137 and 143-146 under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 34-58 of copending Application No. 09/257,166 in view of Gelfand et al. (U.S. Patent Application No. 5,310,652) and Birch et al. (U.S. Patent Application No. 5,677,152). The Office Action also again rejects claims 1-126, 134-137 and 143-145 under 35 U.S.C. 103(a) as being obvious over the combination of Köster et al. (U.S. Patent No. 5,928,906) in view of Gelfand et al. and Birch et al. Similarly, claims 132-133 and 141-142 are rejected under 35 U.S.C. 103(a) as being obvious over the combination of Köster et al. in view of Gelfand et al. and Birch et al. and further in view of Hill (U.S. Patent No. 5,525,492). These rejections are traversed.

In the March 18, 2003, Amendment, Applicants amended the claims to require transcription in the presence of at least two thermostable DNA polymerases. As Applicants explained in the March 18, 2003, Amendment, none of the applied references teach or suggest conducting transcription in the presence of at least two thermostable DNA polymerases.

The Office Action agrees that no reference teaches or suggests conducting reverse transcription in the presence of two thermostable DNA polymerases. However, the Office Action makes the assertion that while "no single reference teaches or

suggests carrying out this two polymerase reverse transcription, it is nevertheless submitted that the combination of the references does suggest it.” (page 7, lines 12-15 of the Office Action, emphasis in original).

However, Applicants believe that the Office Action has not established a prima facie case of obviousness. In particular, as noted in Section 2143.03 of the U.S. Patent and Trademark Manual of Patent Examining Procedure, “[t]o establish prima facie obviousness of a claimed invention, all the claim limitations must be taught or suggested by the prior art”.

The present claims include a limitation that conversion of RNA to DNA “is conducted in the presence of ...at least two thermostable DNA polymerases” (see present claim 1).

Applicants respectfully note that Gelfand et al. does not teach or suggest conversion of RNA to DNA in the presence of at least two thermostable DNA polymerases. In particular, Gelfand et al. actually teaches against the inclusion of two polymerases by stating that the Gelfand et al. process requires “only one enzyme where previous methods required two” (Gelfand et al. column 6, lines 34-36).

Applicants additionally note that Köster et al. does not teach or suggest conversion of RNA to DNA in the presence of at least two thermostable DNA polymerases. In particular, Köster et al. discloses that “reverse transcription can be performed using a suitable reverse transcriptase (e.g. Moloney murine leukemia virus reverse transcriptase)” (Köster et al. column 6, lines 27-31). Thus, Köster et al. clearly disclose reverse transcription using only a single reverse transcriptase.

As neither Gelfand et al. nor Köster et al. teach or suggest conversion of RNA to DNA in the presence of at least two thermostable DNA polymerases, Applicants respectfully submit that the combination of Gelfand et al. and Köster et al. does not and can not teach or suggest conversion of RNA to DNA in the presence of at least two thermostable DNA polymerases.

The Office Action further asserts that considering the Gelfand et al. and Köster et al. "references together would have been suggestive of obtaining the combined advantages of both references-using RNA and the polymerase of Gelfand et al. as one of the two polymerases in the method of Köster et al."

However, Applicants respectfully note that Köster et al. already disclose using RNA. Applicants additionally note that Köster et al. already teach using the same polymerase (for examples including Taq and Tth, see column 7, lines 53-62 of Köster et al.) of Gelfand et al. (for examples including Taq and Tth, see column 13, line 68, to column 14, line 9).

Thus, Köster et al. already discloses using RNA and also already discloses the polymerase of Gelfand et al. as one or the polymerases in their method. Thus, even if the particular polymerase of Gelfand et al. was used in Köster et al., which Köster et al. already discloses, such a combination would not achieve the advantages achieved by the presently claimed invention.

Thus, the presently claimed invention would not have been recreated even with the improper use of hindsight to combine the teachings of Köster et al. Gelfand et al. since neither of these references teaches or suggests (and at least one of the references actually teaches against) conversion of RNA to DNA "conducted in the

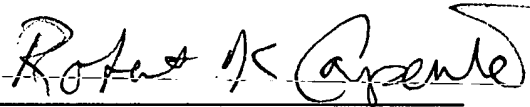
presence of ...at least two thermostable DNA polymerases" as required by the present claims.

Therefore, as neither of Köster et al. nor Gelfand et al. teaches or suggests conversion of RNA to DNA "conducted in the presence of ...at least two thermostable DNA polymerases" and, similarly, as none of copending Application No. 09/257,166, Birch nor Hill teaches or suggests conversion of RNA to DNA "conducted in the presence of ...at least two thermostable DNA polymerases" as required by the present claims, Applicants respectfully submit that the presently claimed invention would not have been obvious over any combination of these references.

Applicants respectfully submit that this application is in condition for allowance and such action is earnestly solicited. If the Examiner believes that anything further is desirable in order to place this application in even better condition for allowance, the Examiner is invited to contact Applicants' undersigned representative at the telephone number listed below to schedule a personal or telephone interview to discuss any remaining issues.

In the event this paper is not considered to be timely filed, Applicants respectfully petition for an appropriate extension of time. Any fees for such an extension, together with any additional fees that may be due with respect to this paper, may be charged to counsel's Deposit Account No. 01-2300, **referencing attorney docket number 101614-08090.**

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Robert K. Carpenter", written over a horizontal line.

Robert K. Carpenter
Registration No. 34,794

Customer No. 004372
ARENT FOX KINTNER PLOTKIN & KAHN, PLLC
1050 Connecticut Avenue, N.W.,
Suite 400
Washington, D.C. 20036-5339
Tel: (202) 857-6000
Fax: (202) 638-4810

RKC/tdd